west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	R13-2862B
Plant ID No.:	033-00190
Applicant:	Allied OFS, LLC
Facility Name:	Bridgeport
Location:	Bridgeport, Harrison County
SIC Code:	1389
NAICS Code:	213112
Application Type:	Class II Administrative
Received Date:	October 26, 2016
Engineer Assigned:	Thornton E. Martin Jr.
Fee Amount:	$300.00
Date Received:	November 07, 2016
Complete Date:	November 21, 2016
Applicant Ad Date:	November 09, 2016
Newspaper:	*The Exponent Telegram*
UTM's:	Easting: 566.253 km Northing: 4348.636 km Zone: 17
Description:	Applicant proposes the addition of two bulk cement silos as well as increasing the permitted maximum quantity of cement to be processed through the plant from 800,000 sacks per year to 1,000,000 sacks per year.

PLANT OVERVIEW

The use of the cement bulk plant will be to store dry bulk cement, blend the materials and load the bulk materials onto bulk trucks to be transported to the oil and gas well sites for use. The cement bulk plant is a closed system since no products are unloaded or loaded without going through an emissions control device (two dust collectors, 1C and 2C, on the waste tank and scale tank, respectively), which is inherent to the process to ensure minimal loss of product. All materials are dry and non-hazardous per DOT guidelines. A concrete pad measuring 65' X 50' supports the entire bulk plant.

DESCRIPTION OF PROCESS

Raw materials will be delivered by truck and pumped into the specific storage silos (eight total). The product will then be pumped from the specific storage silos to the blend tank. From the blend tank it will be sent to the scale tank. At this point the raw materials will be mixed with dry bulk chemicals. Once mixed, product will be pumped back to the blend tank. Once blended, product will transfer to truck for delivery. All emissions from operations will vent to a Donaldson Company, Inc., Model No. CPV-8 Dust Collector (1C) or the original baghouse (2C). VOC losses from the Diesel Tanks are approximately 0.97 lbs/yr each or 0.001 tons/year. The maximum amount of process materials charged per hour are 11.8 tons (250 sacks) of concrete powder and 2.3 tons (50 sacks) of cement supplements or 14.1 tons (300 sacks) of concrete mixture prepared per hour. The facility will operate significantly less than 24 hours/day and 365 days/year, however, the increased throughput will be accomplished by increasing the annual work schedule and therefore, production capacity is limited to 47,000 tons (1,000,000 sacks) of cement mixture loaded per year.

The proposed facility shall be modified and operated in accordance with the following equipment and control device information taken from permit application R13-2862B:

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device
1S	1E	Cement Storage Silo	2010	94 Tons	No Change	1C
2S	1E	Calcium Carbonate Storage Silo	2010	94 Tons	No Change	1C
3S	1E	Cement Storage Silo	2010	94 Tons	No Change	1C
4S	1E	Fly Ash Storage Silo	2010	94 Tons	No Change	1C
5S	1E	Cement Storage Silo	2010	94 Tons	No Change	1C
6S	1E	Barite Storage Silo	2010	35 Tons	No Change	1C
7S	1E	Cement Storage Silo	2010	141 Tons	No Change	1C
8S	1E	Waste Tank	2014	120 Tons	No Change	1C
9S	2E	Scale Tank	2010	9.4 Tons	No Change	2C
10S	1E	Blend Tank	2010	9.4 Tons	No Change	1C
11S	3E	Diesel Storage Tank	2014	2,000 gal.	No Change	N
12S	4E	Diesel Storage Tank	2014	2,000 gal.	No Change	N
13S	1E	Cement Storage Silo	2016	122 Tons	New	1C
14S	1E	Cement Storage Silo	2016	122 Tons	New	1C

SITE INSPECTION

Karl Dettinger of the North Central Regional Office performed a full, on-site, targeted inspection October28, 2015. He noted that there were no visible emissions or odors were detected

at the facility and records review indicated some minor issues, but would be corrected.

Directions: Take Highway 50 (Main Street) East from I-79, through Bridgeport. Facility will be located on south side of E. Main Street (Highway 50), west of intersection with State Highway 76.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

The estimated emission calculations for the concrete batch plant were performed by the applicant's consultant and were reviewed for accuracy and completeness by the writer; those results are used in this evaluation.

Emissions from the dust collectors were estimated using emission factors from AP-42 (6/06), Table 11.12-2. Emissions from the two diesel storage tanks were estimated using EPA's TANKS 4.0.9d software. The Applicant estimates the potential to discharge the following Regulated Air Pollutants will be: PM = 2.88 TPY, PM10 = 1.31 TPY and VOC's = 0.001 TPY. Refer to the following table for a complete summary of the proposed facility's emissions created from the bulk plant:

Emissions Summary - *Allied OFS, LLC - Bridgeport* R13-2862B	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	3.77	2.18	1.70	0.99
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*3.77*	*2.18*	*1.70*	*0.99*
Point Source Emissions				
Transfer Point Emissions	1.170	0.698	0.480	0.318
Point Source Emissions Total	*1.170*	*0.698*	*0.480*	*0.318*
FACILITY EMISSIONS TOTAL	**4.94**	**2.88**	**2.18**	**1.31**

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed facility. The proposed cement processing facility is subject to the following state and federal rules:

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

The proposed facility is subject to the requirements of 45CSR13 because it is to relocate non-major stationary sources within the state of West Virginia. The applicant submitted the proper application fee of $300.00 and published a Class I legal advertisement in *The Exponent Telegram* on November 09, 2016.

45CSR17 To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter

The proposed facility is subject to the requirements of 45CSR17 because it is a storage and handling facility for particulate matter and it is not defined as a manufacturing process, therefore it is not subject to 45CSR7.

45CSR22 - Air Quality Management Fee Program

This rule establishes a program to collect fees for certificates to operate and for permits to construct, modify or relocate sources of air pollution. Funds collected from these fees will be used to supplement the Director's budget for the purpose of maintaining an effective air quality management program. The facility will demonstrate compliance with this rule by obtaining a Certificate to Operate (CTO) and paying annual fees in order to maintain a current CTO.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the pollutants being emitted from this facility are PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter).

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the size and location of this facility and the limits of the permit. The facility is located in Harrison County, WV, which is currently in attainment for PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter).

MONITORING OF OPERATIONS

The dust collector (1C) and baghouse (2C) shall be in operation to capture particulates at the transfer points, and a water truck will be utilized to control particulate emissions from the haulroads.

The permittee shall maintain certified monthly and annual records of the amount of cement processed. The permittee shall also maitain records of baghouse inspections as well as filter changes. These certified records shall be maintained on site for a period not less than five (5) years and be made available to the Director or his or her duly authorized representative upon

request.

RECOMMENDATION TO DIRECTOR

The information contained in this Class II Administrative Update application indicates that compliance with all applicable regulations should be achieved when all proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. No comments were received. Therefore, the granting of a permit to Allied OFS, LLC for the modification of a bulk cement storage and loading facility to be located at Bridgeport in Harrison County, WV is hereby recommended.

Thornton E. Martin Jr.
Permit Engineer

November 21, 2016
Date